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Kirk(10) **Pub. No.: US 2014/0218291 A1**(43) **Pub. Date: Aug. 7, 2014**(54) **ALIGNING VIRTUAL CAMERA WITH REAL CAMERA**(71) Applicant: **MICROSOFT CORPORATION**,
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G06F 3/01 (2006.01)(52) **U.S. Cl.**CPC **G06F 3/011** (2013.01)USPC **345/158**(57) **ABSTRACT**

Embodiments are disclosed that relate to aligning a virtual camera with a real camera. For example, one disclosed embodiment provides a method comprising receiving accelerometer information from a mobile computing device located in a physical space and receiving first image information of the physical space from a capture device separate from the mobile computing device. Based on the accelerometer information and first image information, a virtual image of the physical space from an estimated field of view of the camera is rendered. Second image information is received from the mobile computing device, and the second image information is compared to the virtual image. If the second image information and the virtual image are not aligned, the virtual image is adjusted.

